AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (withdrawn, previously presented) A method for twin-sheet thermoforming plastic fuel tanks, according to which first and second sheets (SA, SB) of thermoformable plastic material are independently heated and moved along a first (A) and, respectively, along a second (B) processing line from a loading station (11A, 11B) to a respective thermoforming station (16A, 16B), the first and second processing lines being parallely arranged, the method comprising the main steps of:

- subjecting each plastic sheet (SA, SB) to a heating;

- pneumatically clamping the heated plastic sheets (SA, SB) along their peripheral edges by air suction, and vacuum supporting the same sheets (SA, SB) in a substantially flat condition by controlling a vacuum degree while the sheets (SA, SB) are moved along the respective processing line (A, B);

- positioning each heated plastic sheet (SA, SB) above a respective shaping mold (17A, 17B) having a facing-up shaping cavity, while continuing to pneumatically hold the sheets (SA, SB) in the aforesaid substantially flat condition;

- lowering the heated plastic sheets (SA, SB) into a respective mold (17A, 17B); and

- thermoforming each heated plastic sheet (SA, SB) into a respective shell (GA, GB), making the same sheet (SA, SB) to adhere to the upwardly open cavity of the shaping mold (17A, 17B);

the method also comprising the supplementary steps of:

- up-side down turning one (17B) of the shaping molds (17A, 17B) and the thermoformed shell (GB);

- superimposing said up-side down turned mold (17B) to the other one (17A) facing up mold (17A), to overlap peripheral sealing areas of the two superimposed thermoformed shells (GA, GB); and

- fusing and hermetically welding the overlapped sealing areas of the shells (GA, GB) by pressing said overlapped sealing areas between clamping surfaces of the shaping molds (17A, 17B).

2. (withdrawn) The method for twin-sheet thermoforming of fuel tanks according to claim 1, comprising the steps of preheating (12A, 12B) each plastic sheet (SA, SB) to a first heating temperature lower than a thermoforming temperature, and maintaining the heating of the sheet (SA, SB) while it is moving along the processing line (A, B).

3. (withdrawn, previously presented) The method for twin-sheet thermoforming of fuel tanks according to claim 2,

comprising the steps of controlling and adjusting the vacuum degree for supporting the sheet (SA, SB), to prevent sagging during the heating and movement along the processing line (A, B).

4. (withdrawn) The method for twin-sheet thermoforming of fuel tanks according to claim 1, comprising the steps of introducing inserts and/or components for the fuel tank, into the upwardly facing cavity of the molds, before thermoforming of the plastic sheets (SA, SB).

5. (withdrawn) The method for twin-sheet thermoforming of fuel tanks according to claim 1, comprising the steps of introducing inserts and/or components of the fuel tank, into the thermoformed shells (GA, GB) through the upwardly facing cavity of the molds (17A, 17B).

6. (withdrawn) The method for twin-sheet thermoforming of fuel tanks according to claim 1, comprising the steps of removing the closed molds (17A, 17B), and of carrying out a cooling of the same closed molds (17A, 17B) outside of the processing lines.

7. (currently amended) A plant for manufacturing plastic fuel tanks comprising first and second twin-sheet thermoformed shells (GA, GB), according to which first and second

thermoformable plastic sheets (SA, SB) are independently heated and moved along respective first and second parallely arranged processing lines (A, B), from a loading station (11A, 11B) through at least one heating station (12A, 14A; 12B, 14B), towards a respective thermoforming station (16A, 16B) where the individual plastic sheets (SA, SB) are thermoformed in a first and a second shaping mold (17A, 17B) into a first and second respective shell (GA, GB), wherein:

- said first and second shaping molds (17A, 17B) are side by side arranged with the open cavities of both molds (17A, 17B) facing upwards;

wherein each processing line (A, B) comprises a pneumatically actuable gripper formed from an air suction frame (24) configured for gripping on a side of the plastic sheets (SA, SB) around their peripheral edges, and a vacuum sheet holding device (15A, 15B) including a vacuum chamber (22) for holding the heated plastic sheets (SA, SB), said pneumatic gripper (24) and said vacuum sheet holding device (15A, 15B) being movable along the processing lines (A, B); and a vacuum control device including an adjustable vacuum source to control a vacuum degree in the vacuum chamber (22) of the vacuum sheet holding device (15A, 15B) for supporting the heated plastic sheets (SA, SB) in a substantially flat condition;

a pneumatic gripping device comprising said [[said]] air suction frame (24), a corresponding pneumatic gripping frame

(36A, 36B) movingly supported by control cylinders (37A, 37B) on each mold, and

a drive (33) conformed and arranged to turn one mold of molds (17A, 17B) upside down to superimpose to the other mold of molds (17A, 17B) and to cause welding of overlapped sealing areas of the thermoformed shells (GA, GB), by compression of the overlapped sealing areas by the molds (17A, 17B),

wherein sheet transfer device (15a) includes a vacuum box or bell element defining a bottom open vacuum chamber, movable up and down in respect to the processing line, and along the same processing line, the vacuum box or bell element is provided with a pneumatic clamping device having at least one air suction channel peripherally arranged around the edges of the vacuum box or bell element, the air suction channel is connectable to an air suction source to clamp the sheet SA at its upper side along its peripheral edge, and to close the vacuum chamber by tightly clamping the plastic sheet SA, and the vacuum box is connectable to the vacuum source by vacuum control means for vacuum holding the heated sheet SA in a suspended, horizontal and substantially flat condition, during movement of the transfer device (15a) along the processing line.

8. (previously presented) The plant for manufacturing plastic fuel tanks according to claim 7, comprising a sheet preheating station (12A, 12B).

9. (previously presented) The plant for manufacturing plastic fuel tanks according to claim 7, comprising a sheet centering station (13A, 13B).

10. (previously presented) The plant for manufacturing plastic fuel tanks according to claim 9, wherein the sheet centering station (13A, 13B) is provided upstream of the sheet preheating station (12A, 12B).

11. (previously presented) The plant for manufacturing plastic fuel tanks according to claim 9, wherein the centering station (13A, 13B) is provided between the preheating station (12A, 12B) and a second heating station (14A, 14B) for the plastic sheets (SA, SB).

12. (previously presented) The plant for manufacturing plastic fuel tanks according to claim 7, wherein the vacuum sheet holding device (15A, 15B) comprises heating elements (28) for the plastic sheets (SA, SB).

13. (canceled)

14. (canceled)

15. (previously presented) The plant for manufacturing plastic fuel tanks according to claim 7, wherein said vacuum sheet holding device (15A, 15B) is in the form of a pneumatically actuable suction bell.

16. (previously presented) The plant for manufacturing plastic fuel tanks according to claim 7, comprising a mold cooling station (20) on one side of the processing lines (A, B), in a side aligned condition with a thermoforming station (16A, 16B), the mold cooling station (20) being configured for transferring the closed molds (17A, 17B) between the thermoforming station (16A, 16B) and the cooling station (20) of the plant.

17. (previously presented) The plant for manufacturing plastic fuel tanks according to claim 16, wherein the cooling station (20) comprises a rotary table (50) having a plurality of mold supporting surfaces (51, 52).

18. (withdrawn) The plant for manufacturing plastic fuel tanks according to claim 16, wherein the cooling station (20) comprises a reciprocable mold supporting shuttle (54) parallely arranged to the processing lines (A, B), said shuttle (54) being provided with at least a first and a second mold supporting surfaces (55, 56).

19. (previously presented) The plant for manufacturing plastic fuel tanks according to claim 16, wherein a device for transferring the molds (17A, 17B) comprise a mold clamping cage (40, 41) reciprocable between a thermoforming station (16A, 16B) and the cooling station (20).

20. (previously presented) The plant for manufacturing plastic fuel tanks according to claim 7, wherein said drive means for upside down turning one mold (17B), comprises a book press.

21. (canceled)